No 15

A
Treatise
on
Pneumonia
by
John R Stone
of
Fredericksburg
Virginia

Passed March 18th
1824
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Pneumonia

Under this head, I include inflammation of all that is contained within the cavity of the Thorax; but shall avoid the fanci= ful and minute division, of some authors. as into Pleuritis Vera. Pleurisy, Peripneumony, Peripneumonia Notha, Pleurodine, Pencarditis, Paraphrenitis, &c this I say, I shall avoid, because I conceive we possess no diagnostics, by which, we can always accurately determine, the true seat of the disease, and because, if we did, it would lead to no alteration, in the mode of treatment, I shall therefore be satisfied, with the less complex, and I think all sufficient division, into Pleuritis Vera, and Peripneumonia Notha.

Pneumonia in its incipient stage, is sometimes so slight, as to be regarded, only as common fever, the patient complaining of Chills, or shiverings, alternating with fits of heat, thirst anxiety, hurried breathing, with increased frequency of pulse and hot skin. In general however, the attack is less ambiguous, commencing with severe pain, dry Cough, difficult breathing, the pulse, full, hard, and tense, with some augmentation of temperature, The

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pulse however, especially in the advanced stage of the disease, is sometimes soft, and weak, and at the same time irregu=lar. The most constant of these, is the dyspnoea which becomes more violent, as the disease advances, it is short and frequent, in consequence of the dilata=tion, occasioned by inspiration, which must necessarily increase the pain. Should the pain be dull or even absent; the breathing, is laborious, accompanied with anxie=ty, and uneasiness about the procordia.

The posture has considerable influence, in diminishing, or increasing, the difficulty of breathing, sometimes the relief is greatest, when lying on the side affected, or on the back, or breast, and sometimes the reverse of all these, gives most relief. sometimes an erect posture is most grateful. a degree of this is in almost all cases necessary, for ease. it is said that the breath of those, in whom the inflammation exists, in a very high degree, is sensibly hotter than in health.

The pain, has its seat in different parts of the chest, but is usually felt in the side about the middle of the seventh rib, or rather more forward with regard to the side in which

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it most frequently makes it appearance; it is impossible to determine. some asserting, that the right, others that the left, is the most common. it is likewise felt under the sternum, clavicle, spines and scapula. this symptom is likewise operated on by the posture. Teiller & Wandt, have asserted, that more danger accompanies this disease, when the pain is seated on the left, than in the right side, this opinion I immagine, is entitled to little credit, as it does not appear the result of experience in others. the pain is most commonly fixed; sometimes however, it shoots, in various directions., it occasionally locates itself in some part, different from the original seat. Cullen seems to have regarded this, as an unfavourable symptom, more modern authors however, with whom I agree, seem to think differently.

The degree, and kind of pain, is as various as its seat, sometimes extremely acute, and most violent, during inspiration, again in other cases, it is more general and obtuse, and in some rather a sense of weight than of pain is felt, there is still another kind, which is only felt, when the patient lies on the one, or the other side, and makes a full inspiration, this is defined Pleuritis Occulta.

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because it requires an effort, on the part of the patient, to make him sensible of the pain, and sometimes, by no means is the pain felt. then the practitioner is left to discover the nature of the disease, from the other symptoms. and it is often the case, that the situation is so little alarming, that no assistance is sought. untill it can be of no avail, I have witnessed a case of this kind.

It is owing to this difference in the degree and kind of pain, that has induced the division already spoken of. I am inclined to concur in opinion with Dr Cullen when he says. "It seems to me probable, that the disease is always seated, or "at least begins. in some parts of the pleura, taking that membrane in its greatest extent, as now commonly understood; "that is, as covering not only the internale surface of the Cavity "of the Thorax, but also as forming the mediastinum, and as "extending over the whole surface of the lungs."

The Cough, is an almost universal attendant. and when the pain is severe, a very distressing symptom of all inflammations of the Thoracic Viscera. and although sometimes

dry at the commencement, it rarely continues so throughout the whole course of the disease. It has been owing to this circumstance divided into dry and humoral, the matter expectorated in the commencement, is generally thin, becoming as the disease advances more thick. In forming our prognosis, much reliance is to be placed on the kinds, of Coughs, and matter expectorated, we are told by Celsus, that when there is no expectoration, the prognosis is bad and worse, should there be expectoration, and it accompanied or mixed with blood, but on this subject there is much diversity of opinion. Some contending against the author last named, that although the spitting of bloody mucous is an alarming symptom, and less favourable than if the blood were absent, yet not so unfavourable, as no expectoration.

Some other particulars are to be noticed relative to this discharge, as the following. When it is of a dark brown colour, greenish or thin, and acrid, so as to excoriate the Epiglottis, or sanious and fetid, the prognosis is very bad. Much rattling in the chest, just before the matter is about to be thrown up, indicates much danger. But should the matter

be copious, bland, free white, or yellowish, it is then favour-able, and it may be remarked, that the more favourable the prognosis is, the greater the relief it brings. An escpe-toration, has been noticed by some writers, termed a bilious spitting the matter is thin, and yellow, thought by some to characterize a disease, called Bilious Pneumonia, this last mentioned discharge, is to be regarded as unfavourable, suppuration is to be dreaded when the matter is scanty, or the expectoration absent, and gangrene may be suspected, when it is sanious or livid. The spitting has been regarded, a diagnostic, between Pleuritis, and Peripneumony, that is between inflammation of the substance of the lungs, and that of its membranes, authors differ widely on this head, Cullen in his definition of Pleuritis says, that the cough, although dry at first, becomes moist and sometimes bloody &c, Wendt remarks, that when a patient labouring under pleuritis, begins to spit, he no longer regards the case as simple pleuritis, but a combination of it and peripneumony.

Sydenham again speaks of spitting as a constant attendant on the true pleurisy, If we except the cough and difficult

breathing, perhaps we have no symptom, more universal in its attendances, than a frequent pulse, as in the other phlegmasia, for the most part it is strong, hard and frequent, in the commencement. and a difference has been observed by some in different sides of the body, a case of which is noticed by Zimmermann. Cleghorn says, the pulse on the side affected is often most obscure

Soon after the commencement of an attack of Pneumonia, the face becomes flushed; the skin dry and hot, the urine at times abundant, and limpid. (it may be proper here to remark this is considered an unfavourable symptom.) at others it is high coloured, and scanty, the bowels are generally irregular, being either loose or costive. the tongue is white and dry, and much thirst, together with most, or all the symptoms of Synocha attend,

The terminations of Pneumonia are resolution, suppuration, and, gangrene which belong to it, in common with the other Phlegmasia. and others peculiar to itself. Resolution is the only favourable termination of Pneumonia. which is generally attended with a free expectoration. and if we except this, no evacuation

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more frequently attends a favourable termination, than sweat. any degree of which when it is general, seldom fails bringing relief, if it be copious it sometimes entirely carries off the disease when it does fail bringing relief however, it is hurtfull, It is said by Wendt that if the symptoms do not soon remit the sweat proves fruitless or even hurtfull, and Quarin says, much sweating which does not bring relief, is dangerous.

Relief is often brought by Epistaxis. Hofman considers it most salutary occurring on the fourth day, it is seldom however attended with a perfect Crisis. Hemorrhois, sometimes tho rarely attends the remissions of pneumonia. Hamoptysis may perhaps be classed among the critical discharges, the miliary eruption sometimes makes its appearance, during the course of the disease, and when not forced out by the heating regimen, may be regarded as a favourable symptom, the resolution of Pneumonia is sometimes accompanied, by high coloured turbid urine, depositing a copious sediment. With regard to diarrhoea I am not prepared to speak positively, or say much, I should imagine it would be productive of relief, when the intestines are loaded with irritating, offensive matter.

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it is said to be most beneficial, when occuring in the advanced stage. what has been said of diarrhoea is mostly applicable to vomiting. The discharge from the Schneiderian membrane and the mucous membrane of the fauces, is unfavorable Huxham terms this the Catarrhal Pneumonia. Pneumonia sometimes terminates by suppuration, of the parotid glands, or by exysipelatous inflammation of of the surface.

Every change in the seat of the inflammation, is not to be regarded as favorable, for it may seize on a part, equally ~~as much~~, if not more vital, than that which it previously occupied, it sometimes attacks parts out of the thorax, in these changes, as the Liver, the Spleen, &c, these favorable terminations just mentioned, are always preceded, by a general remission of the symptoms.

We have next to speak of the unfavorable terminations, and first of suppuration, If after 5 or 7 days signs of resolution, do not manifest themselves, if there be a dry cough, or a spitting which brings no relief, if the symptoms have not yielded to blood letting, and other remedies proper for this disease, especially,

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if delirium, with rather a soft undulating pulse supervenes, we have reason to suspect suppuration, will take place. The symptoms indicating suppuration to have taken place, are frequent shiverings, following the state just mentioned, the pain being relieved, or entirely removed with a sense of weight in some part of the chest, the dyspnoea continuing, the pulse fuller, softer, and more frequent, the cheeks and lips looking red, with an increased thirst, and fever in the evening. When the above symptoms have been seen, together with an obstinate dry cough, the respiration deficult, short, rattling, and more frequent than usual, when the patient is able to lie on the side affected only, febrile exacerbations returning at intervals, particularly in the evening, the dyspnoea, cough, and fever being increased by exercise, or eating when the thirst is considerable, there are sweats towards morning especially about the throat and forehead, with turbid urine, a pallide countenance, wasting of the flesh, and great debility we then suspect a collection of matter somewhere to be found, which if it be in the Lungs, is termed a Vomica, and unless it be near the external surface of these organs, in which case

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it may be evacuated by puncture through the intercostal muscles, it generally proves fatal. there are four ways in which this may happen, the patient may be exhausted by hectic fever without a bursting, this end however may be very considerably procrastinated, as abscesses of the lungs have existed for a long times, without inducing hectic or impairing much the strength or health. When the abscess is large, it sometimes bursts into the substance of the lungs and produces immediate suffocation. The matter is sometimes discharged into the cavity of the thorax, producing then what is called empyema. when the patient is in the erect posture, the matter falls down on the diaphragm, which occasions a sense of weight in that region, the difficulty of breathing, (which is greatly increased by lying down especially on the back) cough, and hectic fever continues and gradually exhaust the patient. we can often in this disease perceive the fluctuation of matter in the chest. The Vomica is sometimes so small that it does not occasion by bursting in on the substance suffocation. but a purulent discharge the general consequence of this is

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an ulcer of the lungs, to which Phthisis succeeds, sometimes in very healthy habits, and especially those that are free from any scrophulous tendancy, the ulcer formed by the bursting of a very small abscess, heals and the patient recovers. An abscess of the lungs sometimes terminates in another way, as by absorption and subsiquent evacuation by stool urine &c. it is even supposed to be taken up and deposited in other parts of the body. Cases of the latter kind if they ever occur, are so rare as scarcely to be worth noticing. Wendt observes, that when Pneumonia terminates by suppuration the abscess generally bursts, before the twentieth day of the disease, sometimes however this does not take place untill a much later period. The termination of Pneumonia by Gangrene, is fortunately very rare, for it is always immediately fatal. it may be foreloded from the the obstinacy, and violence of the symptoms, and when it is about to takes place, there is a mitigation of the pain, the cheks become red, the pulse sinks, and the matter thrown up is of an ichorous appearance. when gangrene has actually taken

place, there is a cessation of pain, without any of the salutary evacuations, above named, the countenance becomes pale, the pulse sinks still lower, and is intermitting. sweats appear on different parts of the body, which are cold and clammy these are accompanied with hiccups, loss of sight, and general stupor, which soon terminates the scene. Many suppose Pneumonia sometimes terminates in schirrus, which according to Quarin, may be known by great difficulty of breathing, and a troublesome dry Cough, remaining after the other symptoms have disappeared, and much increased after a full meal, or much exercise

The terminations peculiar to Pneumonia, are an effusion of red blood, or of a serous fluid, into the substance of the Lungs. and Hydrothorax, the consequence of an exudation from the pleura. Dr Cullin observes the termination by effusion and gangrene are so conjoined, that these symptoms are hardly to be distinguished. When any of the unfavourable terminations are about to take place, the symptoms either in part or the whole are much increased, the pain is more generally diffused the difficulty of breathing is increased, the patient is more -

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watchful, and occasionally affected with some degree of Coma or delirium, the cough is more distressing, the matter brought up with great difficulty, and mixed with a larger portion of blood. Upon the whole, the less difficult the breathing, the less distressing the cough, the more copious the expectoration, the greater the relief it brings, the more regular, and less frequent the pulse, & the less the strength is reduced, the better is the prognosis.

The unfavourable terminations, are said to generally take place before the seventh day, sometimes as early as the third, to this rule there are exceptions, as when it terminates by Vomica, it is frequently much later, they (it has been already remarked) burst generally, before the twentieth day, but if it is succeeded by empyema, or Phthisis death may be delayed to a much later period.

Although we succeed in relieving or removing the symptoms of Pneumonia, the danger is not finally past, for frequently the disease is renewed, the second often the most violent attack, and always more dangerous.

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Of the Causes of Pneumonia.

Persons of a plethoric habit, strong, who use much exercise, and readily digest their food, are most subject to attacks of this disease, and consequently, those of a relaxed habit, indolent in their manner of life, and of bad digestion, are least subject to it. It most frequently attacks persons of a middle age, Cullin says those between the ages of 45 and 60 are most liable, but no age is free from it. it occurs oftenest in cold moist, and damp weather, however according to Pringle and some other army surgeons, all extremes of weather, whether very cold, dry, damp or warm, predispose to this disease, and as in the other phlegmasia. every thing which conduces to plethora, full living, repelled eruptions suppressed secretions &c. may have the same effect, The chief cause is the sudden application of cold, especially when the skin is damp, and in fact any of the common causes of inflammation may produce it. there are some however peculiar to itself, as violent exercises of the Lungs, as by excess of Laughing, singing, speaking &c. or the action of certain noxious vapours inhaled, to which may be added, certain diseases of the Abdominal Viscera.

Pneumonia according to the best writers, is sometimes Epidemic,

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The treatment may be divided into general & locale, or those which act through the medium of the system and those which act topically.

The most important of all the remedies we possess for the cure of Pneumonia, is bloodletting. with regard to quantity, it is impossible to lay down any general rules, once however I have always been governed by myself, and never seen cause to change it, to detract the fluid suddenly, and untill there is obvious relief obtained, in adhering to this rule, we will frequently meet with cases, where from the first bleeding syncope will be induced, if prosecuted too far, or even from a very small bleeding I have seen a disposition to it, in these cases we should desist untill the patient has revived, when we can draw a much larger quantity, without the production of any such effect, much more injury has been the effect of the neglect, than the too free use of the Lancet in this disease, from it, (the liberal use) we combine the advantages of a speedy cure, and do away the effects of an ill cured Pneumonia, a repetition of the

remedy is admissible, as often as the violence of the symptoms recur, and if they should not yeild to the first, three bleedings may be employed in the first twenty four hours we are told that the buffy coat, and other appearance of the blood, should be our guide, but the buff is sometimes, absent, either from the manner of drawing, or some other cause, therefore it cannot be considered an infallible criterion, it is not however to be disregarded, whenever it has been observed, the disappearance of it is always favourable, and it often happens there is no farther occasion for bleeding

It has been asserted that bleeding, after the fourth day, is unsafe, but I have seen cases in which it was practised, as late as the tenth with the happiest effects, it is however most efficatious when used within the space of time first mentioned, or as early as possible, after the patient has been so far reduced by Venesection, as to make a farther perseverance in that unsafe, the symptoms stiet continuing urgent, we may make farther use of the remedy by Cups, and leeches, they should be applied as near the part affected as possible,

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Should any of the spontaneous evacuations occur, and bring suffi-
-cient relief, there is no need of farther reduction by art, but
should they occur, and bring partial, or no relief, we should
not withhold the lancet, it has been supposed to check expecto
ration, and other salutary evacuations, but this does not seem to
be the case. As much as we rely on blood letting
in this disease, it should not induce us to neglect other very
important remedies in the cure, for all the antiphlogistic
measures are to be strictly enforced. with regard to Cathartics
I have to say, that from my own, and the experience of
another (a professor in this school than whom (to use his own
words when speaking of another,) in vain should we look for better
authority,) I very much suspect they are too much neglected.
the professor above alluded to recommends when there are bilious
symptoms to use the mercurials actively, generally the more
mild as the neutral salts will answer. The diaphoretics are
not to be neglected, I have made use of the Eupatorium Perfoliatum
(having had my attention called by Dr Chapman,) with great benefit.
the antimonials are also advantageously employed.

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In the early stage, or before the inflamatory action is sufficient-ly reduced, the stimulating expectorants are inadmissable, now we emply ~~the~~ the antimonials, and mucilagenous mixtures alone, or in combination also the watery vapours may be used. in the second stage we then have recourse to squills, ammonia &c. Opium is also sometimes made use of as an expectorant, but more frequently to relieve the pain, I am aware of the variety of opinions that have, and do exist, with regard to the application of this remedy in Pneumonia, & I do not hesitate to say, that as far as my experience has taught and it has been more than usually falls to the lott of Students, that it is inadmissible before the febrile action is considerably subdued, I have found the combinations of it with Calomel & Ipicac, or in the form of Dovers powder to answer my purposes best.

I have before spoken of the necessity of enforcing the anti-inflamitory regimen, I have only in addition to say, that all are agreed with regard to the diet, determining that all kinds of stimulating, or animal food, together with all

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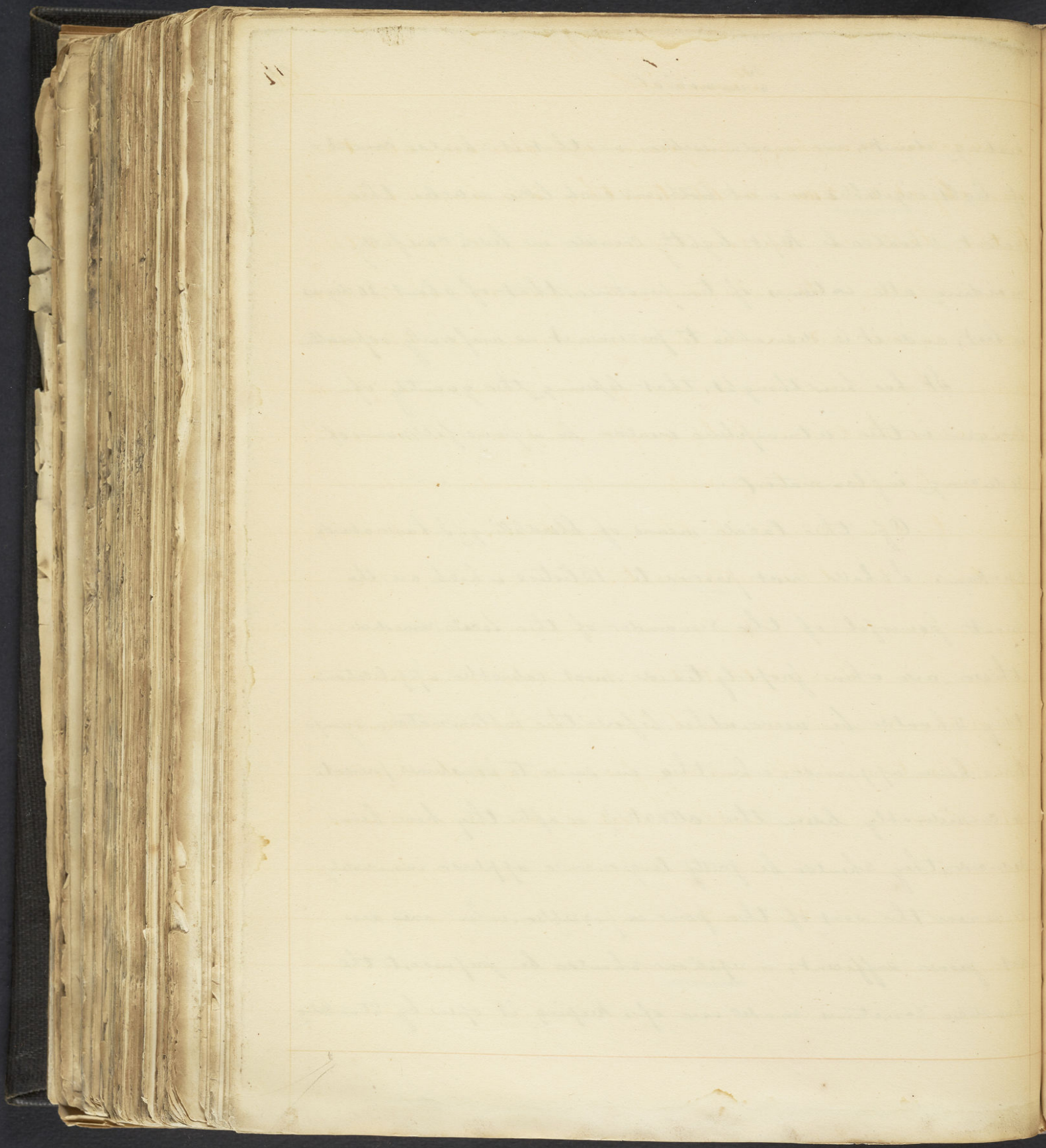
heating drinks, are inadmissible, and that it should consist of light vegitables, or weak broth, and such like articles. the patient should be kept lightly covered in bed, carefully avoiding all extremes of temperature, that of about 60 degrees is best, and it is desirable to preserve it as uniformly as possible

It has been thought, that lessening the quantity of Oxigen in the atmosphere would be a powerful means of reducing inflammation.

Of the local means of bloodletting, I have already spoken. I shall next procied to Blisters which are the most powerful of the remainder of the local remedies. these are when properly timed most valuable applications. they should be used, either before the inflammatory symptoms have appeared, (when, they are said to sometimes prevent, or considerably lessen the attack.) or after they have been reduced, they should be pretty large, and applied immediately or as near the seat of the pain as possible, when one does not prove sufficent, a repetion should be preferred, to the practice sometimes made use of, keeping it open by stimulating



applications as unctions. Sinapisms are also used with the same object in view, as blisters. they are however inferior to the latter in effect, and should never supplant them in practice. Fomentations are made use of in domestic practice and are sometimes very relieving. there are many other means made use of by nurses, and in families some of which are highly usefull, but which need not be mentioned, as they will most fequently or always occur to the minds of the practitioner, if not reminded of them by the attendants.

I regret, that the prejudices of persons in the section of country in which I have resided, is so great that (tho the deaths were very few) an opportunity was not offered me of making Post mortem examinations.

The end.